Claims

1. A spinning preparation machine in which waste can be separated from fibre material, having a sensor arrangement including a light source and a brightness sensor for examining waste, and further having a measurement element, wherein the waste can be conveyed past the sensor arrangement and the brightness sensor is arranged to receive light from the light source reflected by the waste, the received light being convertible into electrical signals which are measurable by the measurement element.

2. A machine according to claim 1, in which the brightness sensor comprises at least one photoelectric element.

3. A machine according to claim 1, in which the brightness sensor is capable of detecting changes in voltage caused by differences in brightness.

4. A machine according to claim 1, having two or more light sources, comprising a plurality of light sources of different colours.

5. A machine according to claim 1, further comprising a collecting device for the waste, a said brightness sensor being arranged to monitor waste in the collecting device.

6. A machine according to claim 5, in which the collecting device is a pneumatic pipe-line.

7. A machine according to claim 5, in which the collecting device is a suction removal hood.

8. A machine according to claim 5, in which the waste can be conveyed through the collecting device.

9. A machine according to claim 5, in which the brightness sensor is arranged in a wall region of the collecting device.

10. A machine according to any claim 5, in which there are a plurality of suction removal hoods and guide vanes, and at least one separate brightness sensor is associated with each suction hood location or each guide vane.

11. A machine according to claim 5, comprising a central waste-collecting line, the brightness sensor being associated with the central waste-collecting line.

12. A machine according to claim 1, comprising an electronic evaluation device arranged to determine one or more parameters selected from: the variation of the brightness of the good fibres; the coefficient of variation of the brightness of the good fibres; and the standard deviation of the brightness of the good fibres.

13. A machine according to claim 1, comprising a control device which can compare the measured results with prespecified quantities and, in the event of a departure therefrom, effect a modification of the waste separation.

14. A machine according to claim 12, which comprises at least one waste separation element associated with a roller of said machine, the at least one waste separation element being adjustable in dependence on measurement results from the evaluation device.

15. A machine according to claim 14, in which the or each waste separation element is a guide vane or a separating blade.

16. A machine according to claim 14, which further comprises at least one angle-measuring device, the angle-measuring device and the evaluation device being connected to a control and regulation device.

17. A machine according to claim 1, in which the measurement results are usable in a control and regulation circuit for optimising the cleaning of the fibre material.

18. A machine according to claim 1, in which the sensor arrangement can be used for determining a blockage of fibre material in the collecting device.

19. A spinning preparation machine in which waste is separated out from fibre material, comprising a collecting device, at least one sensor arrangement comprising a brightness sensor and a light source, and a measuring element, wherein the waste material is conveyable past the at least one sensor arrangement, the light reflected by the moving good fibres being detectable by the brightness sensor and being convertible into electrical signals, which are measurable by the measurement element.